

# PLANT PATENTS

JANUARY 1, 1977 -- DECEMBER 31, 2001



April 2002  
U.S. PATENT AND TRADEMARK OFFICE  
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*A TECHNOLOGY ASSESSMENT AND FORECAST REPORT*

## Plant Patents Report 1/1/1977 - 12/31/2001 Explanation of Data

This Technology Assessment and Forecast (TAF) Program Report profiles patent activity for U.S. plant patents (hereafter referred to as patents) granted between **January 1, 1977** and **December 31, 2001**. The source of the data used for this report is the TAF database maintained by the Information Products Division.

### Data Distribution By Date of Grant and By Date of Application

#### **Parts A1 and A2**

Part A1 distributes patent GRANT data by year of patent grant ("Patents Granted By Date of Patent Grant"). Part A2 distributes grant data by the year in which the patented application was filed ("Patents Granted By Date of Patent Application"). Parts A1 and A2 each provide patent counts (pages A1-1 and A2-1) and percent distributions (pages A1-2 and A2-2).

Patent data in the "**Pre 1988**" column corresponds to the period **January 1, 1977** through **December 31, 1987**.

#### **Part B**

Part B of this report distributes patent GRANT data for organizations that have received U.S. patents since 1977. Data are presented by the year in which the patent was granted ("Patents By Year of Grant") and the year the patented application was filed ("Patents by Year of Application").

DATA FOR THOSE APPLICATIONS WHICH WERE FILED BUT NEVER ISSUED (ROUGHLY 25% OF TOTAL FILINGS) ARE NOT INCLUDED IN THIS REPORT.

Since the average time period between filing for a patent and the issuing of the patent (i.e., a patent's "pendency") is now about 24 months, the patented application data for the most recent years are incomplete.\* This is because a significant number of the applications filed in the most recent years, which will ultimately become patents, were still pending in **December 2001**. Since they had not yet become patents at the time this report was prepared, they were not included in this report.

Patented application data are of significant value since the date an application was filed more accurately reflects when the technology was developed. Additionally, fluctuations in data based on application date are much more likely to reflect changes in technological activity, since such fluctuations would for the most part be immune from changes in PTO processing such as occurred in years such as 1986 when the PTO issued fewer patents than would normally have been expected due to a lack of funds to print patents. Note that a patent's "pendency" can be quite variable from one patent to another thereby affecting the date of patent grant. Such variation in pendency is

determined by many factors, including PTO workload (which varies between technologies), budget and manpower levels, patent printing schedules, etc.

### Parts of the Report

**Parts A1 and A2** present tables which show, by number and percent, the patent activity. Part A1 presents data by year of patent grant ("Patents Granted by Date of Patent Grant"). Part A2 redistributes grant data by year of patent application ("Patents Granted by Date of Patent Application"). The location of patent origin is determined by the residence of the first-named inventor at the time of grant.

Information on **patent ownership** reflects ownership at the time of patent grant and does not include subsequent changes in ownership. If more than one assignee was declared at the time of grant, the patent is attributed to the first-named assignee. The U.S. and Foreign Corporations ownership categories count predominantly corporate patents; however, patents assigned to other organizations such as small businesses, nonprofit organizations, universities, etc. are also included in this category. While U.S. Government patent ownership includes only patents granted to the Federal Government, no such distinction is made for Foreign Government patents.

**Part B** is a ranked listing of national and international organizations (i.e., corporations, universities, government agencies) which have received 5 or more U.S. plant patents since 1977. Data line 1 for each listed organization distributes counts of patent grants by year of grant. Data line 2 for each organization redistributes those same patent grants by year in which the patented application was filed. Information on patent ownership reflects ownership at the time of patent grant. Although a substantial effort has been made to combine name variations into a single organizational name, many organizations continue to have patents listed under more than one organizational name.

\* As of **December 31, 2001**, UTILITY patent application data (most issued patent documents are utility patents) were approximately 79% complete for patent applications filed in 1998, 53% complete for applications filed in 1999, and 16% complete for 2000 filings. They are essentially complete for applications filed prior to 1998. Currently, completion percentages restricted to plant patents are not available.

## Part A1

Patent Grants As Distributed By Year of Patent Grant

---- Patents Granted By Date Of Patent Grant (Granted: Jan 01, 1977 - Dec 31, 2001) ----

	NUMBER OF PATENTS															
	Pre 1988	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	Total
Total	2067	425	587	318	353	321	442	499	387	362	394	561	421	548	584	8269
U.S. Origin	1469	260	345	153	237	196	236	283	201	183	230	245	201	232	372	4843
Foreign Origin	598	165	242	165	116	125	206	216	186	179	164	316	220	316	212	3426
GERMANY	203	27	102	51	39	17	52	32	44	48	34	62	53	70	22	856
NETHERLANDS	101	54	58	38	23	46	63	63	34	41	29	71	65	102	57	845
FRANCE	75	32	24	34	21	13	22	16	16	18	27	27	10	9	4	348
UNITED KINGDOM	72	13	13	11	7	4	13	37	16	8	22	24	20	35	9	304
DENMARK	17	13	3	1	3	4	3	11	16	27	9	40	11	24	21	203
JAPAN	8	3	12	7	2	11	8	9	13	9	6	20	12	16	23	159
AUSTRALIA	2	7	10	3	9	2	3	2	3	7	14	13	11	15	25	126
ISRAEL	2	2		2		7	21	14	21	7		12	6	3	14	111
NEW ZEALAND	23	3	8	2	4	7	7	6	4	2	2	4	9	11	4	96
CANADA	12		4	6	1	8	5	2	7		15	8	6	10	7	91
BELGIUM	5	5	1		2	2	2	10	3	2	4	20	5	12	6	79
COSTA RICA	31	1			3		4	4	6	5		4	2	1	9	70
ITALY	10	4	2	9		2	2	1	1	2		1	1	2		37
AUSTRIA	15	1						1								17
SWITZERLAND	11		2													13
SOUTH AFRICA	1											6	1		4	12
SPAIN			2			2		3		2			1	1	1	12
SWEDEN	4				1		1			1		1	1	1	1	11
COLOMBIA	3		1	1				1	1							7
SOUTH KOREA													2	1	3	6
INDIA												2	1		1	4
ARGENTINA	1							1			1					3
IRELAND								1	1							2
HONDURAS								1			1					2
TAIWAN	1							1								2
MEXICO													1	1		2
BRAZIL														2		2
LEBANON					1											1
NORWAY	1															1
PHILIPPINES													1			1
SLOVAKIA													1			1
MOROCCO												1				1
PORTUGAL															1	1
Ownership:																
U.S. Corporations	1167	197	308	144	188	164	232	250	200	163	198	237	168	246	321	4183
U.S. Government					1						2		1			4
U.S. Individuals	586	98	119	57	75	60	61	82	59	55	73	74	65	48	89	1601
Foreign Corporations	205	96	89	75	44	74	104	150	104	116	98	199	149	207	134	1844
Foreign Government			2	1	1	8	5	2	5		5	1	2	4	4	40
Foreign Individuals	109	34	69	41	44	15	40	15	19	28	18	50	36	43	36	597

---- Patents Granted By Date Of Patent Grant (Granted: Jan 01, 1977 - Dec 31, 2001) ----

	PERCENT OF PATENTS															
	Pre 1988	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	Total
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
U.S. Origin	71	61	59	48	67	61	53	57	52	51	58	44	48	42	64	59
Foreign Origin	29	39	41	52	33	39	47	43	48	49	42	56	52	58	36	41
GERMANY	10	6	17	16	11	5	12	6	11	13	9	11	13	13	4	10
NETHERLANDS	5	13	10	12	7	14	14	13	9	11	7	13	15	19	10	10
FRANCE	4	8	4	11	6	4	5	3	4	5	7	5	2	2	1	4
UNITED KINGDOM	3	3	2	3	2	1	3	7	4	2	6	4	5	6	2	4
DENMARK	1	3	1		1	1	1	2	4	7	2	7	3	4	4	2
JAPAN		1	2	2	1	3	2	2	3	2	2	4	3	3	4	2
AUSTRALIA		2	2	1	3	1	1		1	2	4	2	3	3	4	2
ISRAEL				1		2	5	3	5	2		2	1	1	2	1
NEW ZEALAND	1	1	1	1	1	2	2	1	1	1	1	1	2	2	1	1
CANADA	1		1	2		2	1		2		4	1	1	2	1	1
BELGIUM		1			1	1		2	1	1	1	4	1	2	1	1
COSTA RICA	1				1		1	1	2	1		1			2	1
ITALY		1		3		1				1						0
AUSTRIA	1															0
SWITZERLAND	1															0
SOUTH AFRICA												1			1	0
SPAIN							1	1		1						0
SWEDEN																0
COLOMBIA																0
SOUTH KOREA															1	0
INDIA																0
ARGENTINA																0
IRELAND																0
HONDURAS																0
TAIWAN																0
MEXICO																0
BRAZIL																0
LEBANON																0
NORWAY																0
PHILIPPINES																0
SLOVAKIA																0
MOROCCO																0
PORTUGAL																0
Ownership:																
U.S. Corporations	56	46	52	45	53	51	52	50	52	45	50	42	40	45	55	51
U.S. Government											1					0
U.S. Individuals	28	23	20	18	21	19	14	16	15	15	19	13	15	9	15	19
Foreign Corporations	10	23	15	24	12	23	24	30	27	32	25	35	35	38	23	22
Foreign Government						2	1		1		1			1	1	0
Foreign Individuals	5	8	12	13	12	5	9	3	5	8	5	9	9	8	6	7

## Part A2

Patent Grants As Distributed By Year of Patent Application

---- Patents Granted By Date Of Patent Application (Granted: Jan 01, 1977 - Dec 31, 2001) ----

	NUMBER OF PATENTED APPLICATIONS															
	Pre 1988	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	Total
Total	2840	360	363	410	399	317	340	424	431	624	622	558	453	116	12	8269
U.S. Origin	1925	224	195	251	212	180	214	221	218	316	266	261	281	79		4843
Foreign Origin	915	136	168	159	187	137	126	203	213	308	356	297	172	37	12	3426
GERMANY	285	56	53	45	35	26	25	46	52	47	88	73	22	3		856
NETHERLANDS	203	19	40	40	74	28	41	37	47	58	88	97	57	12	4	845
FRANCE	120	17	37	22	12	19	13	14	21	38	17	15	1	2		348
UNITED KINGDOM	91	12	10	13	7	16	14	23	11	33	33	34	6	1		304
DENMARK	30	4	2	2	6		8	19	27	35	26	23	13		8	203
JAPAN	18	8	4	12	4	11	2	12	15	26	15	9	23			159
AUSTRALIA	18	2	8	4	2	2	2	4	8	21	21	9	15	10		126
ISRAEL	4	2		1	29	5	7	25	3	12	8	2	13			111
NEW ZEALAND	32	2	5	6	8	6	1	5	2	6	18	3	2			96
CANADA	15	6	2	4	6	5	1	6	9	11	9	10	6	1		91
BELGIUM	11			4		8	8	2	3	15	10	10	6	2		79
COSTA RICA	32			3		5	1	5	8		7		4	5		70
ITALY	14	7	4	1	3	1		1	2	2		2				37
AUSTRIA	16						1									17
SWITZERLAND	13															13
SOUTH AFRICA	1								1	4	2	2	2			12
SPAIN	2			2		3			2		1	1	1			12
SWEDEN	4		1		1			1			2	1	1			11
COLOMBIA	3	1	1			1		1								7
SOUTH KOREA											3	3				6
INDIA											3	1				4
ARGENTINA	1						1		1							3
IRELAND							1	1								2
HONDURAS								1	1							2
TAIWAN	1					1										2
MEXICO											2					2
BRAZIL												2				2
LEBANON			1													1
PHILIPPINES											1					1
SLOVAKIA											1					1
MOROCCO											1					1
NORWAY	1															1
PORTUGAL														1		1
Ownership:																
U.S. Corporations	1546	184	178	205	184	183	184	213	191	293	239	267	243	73		4183
U.S. Government			1						1	1	1					4
U.S. Individuals	750	76	61	82	58	48	59	64	77	93	89	60	69	15		1601
Foreign Corporations	366	52	81	71	114	69	88	123	130	191	212	208	109	21	9	1844
Foreign Government	2		1	2	11	3	1	4	2	4	3	4	3			40
Foreign Individuals	176	48	41	50	32	14	8	20	30	42	78	19	29	7	3	597

---- Patents Granted By Date Of Patent Application (Granted: Jan 01, 1977 - Dec 31, 2001) ----

	PERCENT OF PATENTED APPLICATIONS															
	Pre 1988	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	Total
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
U.S. Origin	68	62	54	61	53	57	63	52	51	51	43	47	62	68		59
Foreign Origin	32	38	46	39	47	43	37	48	49	49	57	53	38	32	100	41
GERMANY	10	16	15	11	9	8	7	11	12	8	14	13	5	3		10
NETHERLANDS	7	5	11	10	19	9	12	9	11	9	14	17	13	10	33	10
FRANCE	4	5	10	5	3	6	4	3	5	6	3	3		2		4
UNITED KINGDOM	3	3	3	3	2	5	4	5	3	5	5	6	1	1		4
DENMARK	1	1	1		2		2	4	6	6	4	4	3		67	2
JAPAN	1	2	1	3	1	3	1	3	3	4	2	2	5			2
AUSTRALIA	1	1	2	1	1	1	1	1	2	3	3	2	3	9		2
ISRAEL		1			7	2	2	6	1	2	1		3			1
NEW ZEALAND	1	1	1	1	2	2		1		1	3	1				1
CANADA	1	2	1	1	2	2		1	2	2	1	2	1	1		1
BELGIUM				1		3	2		1	2	2	2	1	2		1
COSTA RICA	1			1		2		1	2		1		1	4		1
ITALY		2	1		1											0
AUSTRIA	1															0
SWITZERLAND																0
SOUTH AFRICA										1						0
SPAIN						1										0
SWEDEN																0
COLOMBIA																0
SOUTH KOREA												1				0
INDIA																0
ARGENTINA																0
IRELAND																0
HONDURAS																0
TAIWAN																0
MEXICO																0
BRAZIL																0
LEBANON																0
PHILIPPINES																0
SLOVAKIA																0
MOROCCO																0
NORWAY																0
PORTUGAL														1		0
Ownership:																
U.S. Corporations	54	51	49	50	46	58	54	50	44	47	38	48	54	63		51
U.S. Government																0
U.S. Individuals	26	21	17	20	15	15	17	15	18	15	14	11	15	13		19
Foreign Corporations	13	14	22	17	29	22	26	29	30	31	34	37	24	18	75	22
Foreign Government					3	1		1		1		1	1			0
Foreign Individuals	6	13	11	12	8	4	2	5	7	7	13	3	6	6	25	7



## Part B

Ranked Listing of Organizations with Patent Grants

As Distributed By Year of Patent Grant

and As Distributed By Year of Patent Application

---- Organizational Patenting

(Granted: Jan 01, 1977 - Dec 31, 2001) ---- Ranked List of Organizations with 5 or More Patents ----

Pre

1988 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 TOTAL

YODER BROTHERS, INC.

Patents By Year of Grant: 137 21 45 14 47 18 38 53 22 29 36 26 22 14 77 599

Patents By Year of Application: 172 32 45 28 35 24 43 29 23 40 35 15 55 23 0 599

BEAR CREEK GARDENS, INC.

Patents By Year of Grant: 0 0 9 2 15 14 13 61 29 17 4 15 29 53 2 263

Patents By Year of Application: 9 2 0 27 14 26 30 35 12 18 29 49 12 0 0 263

CONARD-PYLE COMPANY

Patents By Year of Grant: 62 13 14 21 12 9 24 13 10 16 14 7 1 0 0 216

Patents By Year of Application: 81 11 18 17 11 18 12 10 18 13 7 0 0 0 0 216

PAUL ECKE RANCH, INC.

Patents By Year of Grant: 9 0 0 14 7 11 25 12 16 1 14 26 12 24 31 202

Patents By Year of Application: 9 11 6 15 8 18 11 16 4 22 19 32 30 1 0 202

JACKSON & PERKINS CO.

Patents By Year of Grant: 112 13 21 10 1 0 0 0 0 0 0 0 0 0 0 157

Patents By Year of Application: 144 6 7 0 0 0 0 0 0 0 0 0 0 0 0 157

MIKKELSENS, INC.

Patents By Year of Grant: 78 23 6 12 0 15 6 12 1 3 1 0 0 0 0 157

Patents By Year of Application: 105 2 12 13 2 6 12 1 4 0 0 0 0 0 0 157

PAN AMERICAN PLANT COMPANY

Patents By Year of Grant: 116 0 0 0 0 0 0 0 0 0 0 0 0 0 0 116

Patents By Year of Application: 116 0 0 0 0 0 0 0 0 0 0 0 0 0 0 116

NOR'EAST MINIATURE ROSES, INC.

Patents By Year of Grant: 48 2 17 1 5 5 7 4 1 6 5 4 2 2 1 110

Patents By Year of Application: 61 7 4 5 5 4 3 7 2 4 8 0 0 0 0 110

DEVOR NURSERIES, INC.

Patents By Year of Grant: 7 0 4 0 16 18 5 4 10 13 5 7 6 3 0 98

Patents By Year of Application: 10 1 7 18 9 7 5 9 13 11 8 0 0 0 0 98

VAN STAAVEREN B.V.

Patents By Year of Grant: 5 4 6 0 5 17 4 12 6 4 4 10 9 7 0 93

Patents By Year of Application: 15 0 0 22 4 2 10 6 4 11 9 3 7 0 0 93

FLORFIS AG

Patents By Year of Grant: 0 0 0 6 3 0 8 15 14 11 5 7 6 3 7 85

Patents By Year of Application: 0 0 9 0 7 1 15 18 10 8 8 3 5 1 0 85

---- Organizational Patenting (Granted: Jan 01, 1977 - Dec 31, 2001) ---- Ranked List of Organizations with 5 or More Patents ----

	Pre 1988	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	TOTAL
MELRIDGE, INC.																
Patents By Year of Grant:	37	26	20	0	0	0	0	0	0	0	0	0	0	0	0	83
Patents By Year of Application:	83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	83
UNIVERSITY OF CALIFORNIA, THE REGENTS OF																
Patents By Year of Grant:	38	6	10	1	2	0	4	8	2	2	0	4	0	2	3	82
Patents By Year of Application:	54	1	0	2	3	1	8	2	2	4	0	2	2	1	0	82
FIDES BEHEER B.V.																
Patents By Year of Grant:	0	13	20	0	0	14	23	1	2	1	2	3	0	2	0	81
Patents By Year of Application:	31	2	0	4	31	2	1	2	1	3	2	0	2	0	0	81
GESSELLSCHAFTSVERTRAG UBER DIE ERFINDERGEMEINSCHAFT "OPTI																
Patents By Year of Grant:	55	6	16	0	0	0	0	0	0	0	0	0	0	0	0	77
Patents By Year of Application:	77	0	0	0	0	0	0	0	0	0	0	0	0	0	0	77
CLEANGRO, LTD.																
Patents By Year of Grant:	0	0	0	0	0	0	0	3	0	0	15	14	11	23	2	68
Patents By Year of Application:	0	0	0	0	0	2	1	1	0	25	14	25	0	0	0	68
DANZIGER - "DAN" FLOWER FARM																
Patents By Year of Grant:	0	0	0	0	0	1	16	2	20	4	0	7	5	1	12	68
Patents By Year of Application:	0	0	0	0	17	2	0	21	3	7	5	2	11	0	0	68
OGLEVEE LTD.																
Patents By Year of Grant:	0	0	12	2	0	5	4	2	4	2	2	3	0	9	23	68
Patents By Year of Application:	0	9	5	1	7	1	0	6	4	3	0	9	2	21	0	68
LABORATOIRE DE PHYSIOLOGIE VEGETALE DE LA LONDE																
Patents By Year of Grant:	29	17	3	11	0	0	1	4	1	0	0	0	0	0	0	66
Patents By Year of Application:	49	8	3	0	1	4	0	1	0	0	0	0	0	0	0	66
GEORGE J. BALL, INC.																
Patents By Year of Grant:	7	0	0	0	3	0	13	4	12	22	0	0	0	0	0	61
Patents By Year of Application:	7	0	0	3	7	7	3	12	22	0	0	0	0	0	0	61
ARMSTRONG NURSERIES, INC.																
Patents By Year of Grant:	55	2	0	0	0	0	0	0	0	0	0	0	0	0	0	57
Patents By Year of Application:	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	57
CHRYSANTHEMUM BREEDERS ASSOCIATION N.V.																
Patents By Year of Grant:	17	11	2	0	0	0	2	9	0	0	3	3	0	9	1	57
Patents By Year of Application:	29	1	0	0	4	0	7	0	0	6	0	10	0	0	0	57

---- Organizational Patenting (Granted: Jan 01, 1977 - Dec 31, 2001) ---- Ranked List of Organizations with 5 or More Patents ----

	Pre 1988	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	TOTAL
<b>BALL PANAM PLANT COMPANY</b>																
Patents By Year of Grant:	25	21	10	0	0	0	0	0	0	0	0	0	0	0	0	56
Patents By Year of Application:	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	56
<b>DE RUITER'S NIEUWE ROZEN B.V.</b>																
Patents By Year of Grant:	0	4	1	1	7	0	3	6	5	9	0	10	7	3	0	56
Patents By Year of Application:	4	1	6	2	3	6	1	2	11	4	13	3	0	0	0	56
<b>BALL FLORAPLANT, A DIVISION OF BALL HORTICULTURAL CO.</b>																
Patents By Year of Grant:	0	0	0	0	0	0	5	2	0	0	0	0	0	30	18	55
Patents By Year of Application:	0	0	0	0	0	7	0	0	0	0	0	16	32	0	0	55
<b>CALIFORNIA FLORIDA PLANT COMPANY L.P.</b>																
Patents By Year of Grant:	0	0	0	0	3	8	21	0	5	0	4	8	0	0	6	55
Patents By Year of Application:	0	0	0	10	9	12	1	5	0	12	0	6	0	0	0	55
<b>DAVID AUSTIN ROSES LIMITED</b>																
Patents By Year of Grant:	0	0	0	4	3	0	9	20	0	5	0	3	3	4	0	51
Patents By Year of Application:	0	4	3	9	0	11	5	4	5	0	6	4	0	0	0	51
<b>DUMMEN JUNGPFANZENKULTUREN</b>																
Patents By Year of Grant:	0	0	0	0	0	0	0	0	0	19	6	0	6	17	1	49
Patents By Year of Application:	0	0	0	0	0	0	0	0	20	6	0	21	1	1	0	49
<b>SUNTORY LTD.</b>																
Patents By Year of Grant:	0	0	3	0	0	0	0	2	7	3	3	10	10	4	6	48
Patents By Year of Application:	0	3	0	0	0	0	0	5	10	11	9	4	6	0	0	48
<b>JOHN BODGER &amp; SONS CO.</b>																
Patents By Year of Grant:	0	0	0	0	0	0	0	0	2	0	7	21	6	4	7	47
Patents By Year of Application:	0	0	0	0	0	0	0	2	7	17	10	11	0	0	0	47
<b>WEEKS WHOLESALE ROSE GROWERS, INC.</b>																
Patents By Year of Grant:	0	0	3	0	1	2	3	0	10	7	4	7	3	5	0	45
Patents By Year of Application:	1	2	0	1	3	2	2	8	7	6	6	7	0	0	0	45
<b>TERRA NIGRA HOLDING B.V.</b>																
Patents By Year of Grant:	0	0	0	0	0	10	0	12	5	0	9	0	1	4	0	41
Patents By Year of Application:	0	0	0	3	7	7	9	1	4	5	0	5	0	0	0	41
<b>MONROVIA NURSERY CO.</b>																
Patents By Year of Grant:	14	3	3	1	0	1	0	2	0	2	2	2	3	3	3	39
Patents By Year of Application:	19	2	0	1	0	0	2	0	2	4	4	4	1	0	0	39

---- Organizational Patenting

(Granted: Jan 01, 1977 - Dec 31, 2001) ---- Ranked List of Organizations with 5 or More Patents ----

	Pre																
	1988	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	TOTAL	
POULSEN ROSER APS																	
Patents By Year of Grant:	0	0	0	0	0	0	0	0	0	0	0	10	5	19	2	36	
Patents By Year of Application:	0	0	0	0	0	0	0	0	0	0	15	19	2	0	0	36	
DRISCOLL STRAWBERRY ASSOCIATES INC.																	
Patents By Year of Grant:	14	2	1	2	1	0	0	3	1	0	0	3	1	6	1	35	
Patents By Year of Application:	16	3	1	0	0	0	3	1	0	2	6	2	1	0	0	35	
KLEMM & SOHN																	
Patents By Year of Grant:	1	3	5	3	2	2	2	8	2	0	0	0	0	7	0	35	
Patents By Year of Application:	4	6	4	2	2	2	8	0	0	0	0	5	2	0	0	35	
OGLEVEE ASSOCIATES, INC.																	
Patents By Year of Grant:	29	5	0	0	0	0	0	0	0	0	0	0	0	0	0	34	
Patents By Year of Application:	34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34	
RUTGERS UNIVERSITY																	
Patents By Year of Grant:	5	0	9	7	2	0	4	2	2	0	0	0	0	3	0	34	
Patents By Year of Application:	8	12	1	2	4	3	0	1	0	0	0	3	0	0	0	34	
RIJNPLANT																	
Patents By Year of Grant:	0	0	0	0	0	0	0	0	0	0	0	3	9	13	8	33	
Patents By Year of Application:	0	0	0	0	0	0	0	0	0	2	4	17	9	1	0	33	
STARK BROTHERS NURSERIES & ORCHARDS COMPANY																	
Patents By Year of Grant:	26	2	1	0	0	0	0	2	2	0	0	0	0	0	0	33	
Patents By Year of Application:	28	1	0	0	0	1	1	2	0	0	0	0	0	0	0	33	
SEQUOIA NURSERY																	
Patents By Year of Grant:	16	2	5	1	0	3	5	0	0	0	0	0	0	0	0	32	
Patents By Year of Application:	20	3	1	0	7	1	0	0	0	0	0	0	0	0	0	32	
BALL SEED CO., A DIVISION OF GEO. J. BALL, INC.																	
Patents By Year of Grant:	0	0	16	0	3	3	1	2	6	0	0	0	0	0	0	31	
Patents By Year of Application:	7	9	0	6	0	1	0	5	3	0	0	0	0	0	0	31	
JACKSON & PERKINS WHOLESALE, INC.																	
Patents By Year of Grant:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	31	
Patents By Year of Application:	0	0	0	0	0	0	0	0	0	0	0	0	31	0	0	31	
TWYFORD INTERNATIONAL, INC.																	
Patents By Year of Grant:	0	0	0	0	0	0	0	7	3	8	9	2	1	0	0	30	
Patents By Year of Application:	0	0	0	0	0	1	6	4	9	8	2	0	0	0	0	30	

---- Organizational Patenting

(Granted: Jan 01, 1977 - Dec 31, 2001) ---- Ranked List of Organizations with 5 or More Patents ----

	Pre															
	1988	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	TOTAL
GOLDSMITH SEEDS, INC.																
Patents By Year of Grant:	0	0	0	0	0	13	0	3	6	0	0	2	3	0	1	28
Patents By Year of Application:	0	0	0	0	13	0	3	5	1	2	3	1	0	0	0	28
TERRA-NOVA NURSERIES, INC.																
Patents By Year of Grant:	0	0	0	0	0	0	0	3	0	0	0	1	2	12	9	27
Patents By Year of Application:	0	0	0	0	0	0	3	0	0	0	2	13	9	0	0	27
SUNSHINE FOLIAGE WORLD																
Patents By Year of Grant:	0	0	0	0	0	0	0	3	4	2	1	7	6	2	1	26
Patents By Year of Application:	0	0	0	0	0	0	3	4	2	7	3	6	1	0	0	26
CEBECO LILIES, INC.																
Patents By Year of Grant:	0	0	0	0	0	1	0	1	8	0	0	9	5	0	0	24
Patents By Year of Application:	0	0	0	1	0	1	0	8	0	4	10	0	0	0	0	24
CORNELL RESEARCH FOUNDATION INC.																
Patents By Year of Grant:	5	2	1	1	0	2	0	2	0	1	0	0	7	0	2	23
Patents By Year of Application:	7	2	0	2	1	0	2	0	0	0	7	2	0	0	0	23
GEBR. VLETTER & J.A. DEN HAAN																
Patents By Year of Grant:	0	0	0	5	0	0	17	1	0	0	0	0	0	0	0	23
Patents By Year of Application:	0	4	1	0	18	0	0	0	0	0	0	0	0	0	0	23
KNUD JEPSEN A/S																
Patents By Year of Grant:	0	0	0	0	0	0	0	0	0	4	0	6	0	3	9	22
Patents By Year of Application:	0	0	0	0	0	0	0	0	4	5	1	3	4	0	5	22
PURDUE RESEARCH FOUNDATION																
Patents By Year of Grant:	18	1	0	0	0	0	0	0	2	0	1	0	0	0	0	22
Patents By Year of Application:	19	0	0	0	0	0	2	0	1	0	0	0	0	0	0	22
FA. GEBR. VERWER																
Patents By Year of Grant:	0	0	0	0	0	0	0	0	0	0	0	10	0	9	2	21
Patents By Year of Application:	0	0	0	0	0	0	0	0	0	0	10	9	2	0	0	21
SELECTION NEW PLANT SARL																
Patents By Year of Grant:	0	0	0	0	0	0	0	0	0	11	6	2	0	2	0	21
Patents By Year of Application:	0	0	0	0	0	0	0	11	0	7	1	2	0	0	0	21
BLOOMS OF BRESSINGHAM LTD.																
Patents By Year of Grant:	0	0	0	1	1	0	2	3	1	0	1	3	2	4	2	20
Patents By Year of Application:	0	0	2	0	2	0	3	1	1	0	7	3	1	0	0	20

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---- Organizational Patenting

(Granted: Jan 01, 1977 - Dec 31, 2001) ---- Ranked List of Organizations with 5 or More Patents ----

	Pre 1988	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	TOTAL
<b>B. V. HANDELSKWEKERIJ/M. C. VAN STAAVEREN</b>																
Patents By Year of Grant:	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
Patents By Year of Application:	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
<b>ENTHOVEN BREEDING B.V.</b>																
Patents By Year of Grant:	0	0	0	0	0	0	0	0	8	0	0	6	2	0	0	16
Patents By Year of Application:	0	0	0	0	0	0	0	8	0	6	0	2	0	0	0	16
<b>PLANT COMPANY</b>																
Patents By Year of Grant:	0	0	0	0	8	5	0	0	0	0	0	0	3	0	0	16
Patents By Year of Application:	0	0	8	5	0	0	0	0	0	0	3	0	0	0	0	16
<b>BAY CITY FLOWER COMPANY, INC.</b>																
Patents By Year of Grant:	0	1	0	1	1	1	0	1	0	5	1	2	1	0	1	15
Patents By Year of Application:	1	0	2	0	1	1	0	1	4	1	3	1	0	0	0	15
<b>FISCHER GERANIUMS, INC.</b>																
Patents By Year of Grant:	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
Patents By Year of Application:	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
<b>GOLDSMITH PLANTS, INC.</b>																
Patents By Year of Grant:	0	0	0	0	0	0	0	0	0	0	0	0	0	10	5	15
Patents By Year of Application:	0	0	0	0	0	0	0	0	0	0	0	12	3	0	0	15
<b>SAN JOAQUIN ROSE CO.</b>																
Patents By Year of Grant:	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
Patents By Year of Application:	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
<b>E. G. HILL CO., INC.</b>																
Patents By Year of Grant:	11	0	0	0	0	0	2	0	0	0	0	0	0	0	1	14
Patents By Year of Application:	11	0	0	0	0	2	0	0	0	0	0	0	1	0	0	14
<b>HINES NURSERIES INC.</b>																
Patents By Year of Grant:	0	0	0	0	3	0	0	1	1	0	0	0	0	0	9	14
Patents By Year of Application:	0	0	3	0	0	1	0	1	0	0	0	0	9	0	0	14
<b>O. M. SCOTT AND SONS COMPANY</b>																
Patents By Year of Grant:	3	3	5	0	0	1	1	0	1	0	0	0	0	0	0	14
Patents By Year of Application:	9	2	0	1	0	1	1	0	0	0	0	0	0	0	0	14
<b>OGLESBY PLANT LABORATORIES, INC.</b>																
Patents By Year of Grant:	0	0	1	0	1	0	2	2	0	1	3	4	0	0	0	14
Patents By Year of Application:	0	1	0	1	2	0	2	0	1	6	1	0	0	0	0	14



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(Granted: Jan 01, 1977 - Dec 31, 2001) ---- Ranked List of Organizations with 5 or More Patents ----

	Pre																
	1988	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	TOTAL	
OGLESBY PLANTS INTERNATIONAL, INC.																	
Patents By Year of Grant:	0	0	0	0	0	0	0	0	0	0	0	1	5	1	7	14	
Patents By Year of Application:	0	0	0	0	0	0	0	0	0	0	5	1	4	4	0	14	
SAATZUCHT QUEDLINBURG GMBH																	
Patents By Year of Grant:	0	0	0	0	0	0	0	0	0	0	12	2	0	0	0	14	
Patents By Year of Application:	0	0	0	0	0	0	0	0	0	13	1	0	0	0	0	14	
CARLTON ROSE NURSERIES, INC.																	
Patents By Year of Grant:	7	1	1	1	0	2	0	0	0	0	1	0	0	0	0	13	
Patents By Year of Application:	8	1	1	2	0	0	0	0	1	0	0	0	0	0	0	13	
FUTURE PLANTS V.O.F.																	
Patents By Year of Grant:	0	0	0	0	0	0	0	0	0	0	0	0	0	3	10	13	
Patents By Year of Application:	0	0	0	0	0	0	0	0	0	0	0	3	8	2	0	13	
J. FRANK SCHMIDT & SON CO.																	
Patents By Year of Grant:	1	1	0	1	4	0	1	0	2	0	0	3	0	0	0	13	
Patents By Year of Application:	2	1	2	2	0	1	0	2	0	0	3	0	0	0	0	13	
KENT'S BROMELIAD NURSERY, INC.																	
Patents By Year of Grant:	0	0	0	0	0	0	0	0	2	3	2	1	0	4	1	13	
Patents By Year of Application:	0	0	0	0	0	0	2	3	2	1	0	4	1	0	0	13	
RESEARCH CORPORATION TECHNOLOGIES, INC.																	
Patents By Year of Grant:	0	0	1	4	6	0	1	0	1	0	0	0	0	0	0	13	
Patents By Year of Application:	1	0	10	0	1	0	0	0	1	0	0	0	0	0	0	13	
TWYFORD PLANT LABORATORIES, INC.																	
Patents By Year of Grant:	0	0	0	8	1	0	0	0	0	0	0	0	0	0	4	13	
Patents By Year of Application:	0	0	9	0	0	0	0	0	0	0	0	0	1	3	0	13	
ADAMS COUNTY NURSERY, INC.																	
Patents By Year of Grant:	0	1	4	0	0	0	0	0	0	0	1	1	3	2	0	12	
Patents By Year of Application:	1	4	0	0	0	0	0	0	1	0	4	2	0	0	0	12	
FLORIDA FOUNDATION SEED PRODUCERS, INC.																	
Patents By Year of Grant:	0	0	0	0	0	0	0	2	4	2	2	1	0	0	1	12	
Patents By Year of Application:	0	0	0	0	0	2	3	3	1	2	0	0	1	0	0	12	
GREEN CIRCLE GROWERS, INC.																	
Patents By Year of Grant:	0	0	0	0	0	0	0	0	0	0	11	1	0	0	0	12	
Patents By Year of Application:	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	12	

Ranked List of Organizations with 5 or More Patents ----

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---- Organizational Patenting

(Granted: Jan 01, 1977 - Dec 31, 2001) ---- Ranked List of Organizations with 5 or More Patents ----

	Pre 1988	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	TOTAL
HOFFGAARDE B.V.																
Patents By Year of Grant:	0	0	0	2	0	0	0	1	7	0	0	0	1	0	0	11
Patents By Year of Application:	0	0	2	0	0	0	0	8	0	0	1	0	0	0	0	11
INTER-PLANT PATENT MARKETING, INC.																
Patents By Year of Grant:	0	0	0	0	0	3	1	3	0	4	0	0	0	0	0	11
Patents By Year of Application:	0	0	3	0	2	2	0	0	4	0	0	0	0	0	0	11
INTERNATIONAL PLANT BREEDING AG																
Patents By Year of Grant:	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	11
Patents By Year of Application:	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	11
IOWA STATE UNIVERSITY RESEARCH FOUNDATION INC.																
Patents By Year of Grant:	10	1	0	0	0	0	0	0	0	0	0	0	0	0	0	11
Patents By Year of Application:	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
JOSEPH H. HILL COMPANY																
Patents By Year of Grant:	8	1	1	0	0	0	1	0	0	0	0	0	0	0	0	11
Patents By Year of Application:	10	0	0	0	1	0	0	0	0	0	0	0	0	0	0	11
L. DAEHNFELDT A/S																
Patents By Year of Grant:	1	7	1	0	0	0	0	0	0	2	0	0	0	0	0	11
Patents By Year of Application:	8	1	0	0	0	0	0	0	2	0	0	0	0	0	0	11
RESEARCH CORPORATION																
Patents By Year of Grant:	5	6	0	0	0	0	0	0	0	0	0	0	0	0	0	11
Patents By Year of Application:	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
SUN WORLD, INC.																
Patents By Year of Grant:	0	0	0	0	3	0	4	0	0	0	1	3	0	0	0	11
Patents By Year of Application:	0	0	0	3	2	2	0	0	0	4	0	0	0	0	0	11
UNIVERSITY OF MINNESOTA, THE REGENTS OF																
Patents By Year of Grant:	2	0	1	3	0	1	1	0	0	0	0	1	1	1	0	11
Patents By Year of Application:	2	4	0	1	1	0	0	0	0	1	2	0	0	0	0	11
BAILEY NURSERIES, INC.																
Patents By Year of Grant:	2	0	1	0	0	0	1	1	0	0	1	1	1	0	2	10
Patents By Year of Application:	2	1	0	0	1	1	0	0	0	1	1	1	2	0	0	10
BEGONIA BREEDERS ASSOC. B.V.																
Patents By Year of Grant:	0	0	0	0	0	0	0	0	0	0	0	7	3	0	0	10
Patents By Year of Application:	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	10

---- Ranked List of Organizations with 5 or More Patents ----

[illegible]

(Granted: Jan 01, 1977 - Dec 31, 2001) ---- Ranked List of Organizations with 5 or More Patents ----

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---- Organizational Patenting

(Granted: Jan 01, 1977 - Dec 31, 2001) ---- Ranked List of Organizations with 5 or More Patents ----

Pre

1988 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 TOTAL

PLANTAS DE NAVARRA S.A.

Patents By Year of Grant: 0 0 0 0 0 2 0 3 0 2 0 0 1 0 0 8

Patents By Year of Application: 0 0 0 2 0 3 0 0 2 0 1 0 0 0 0 8

SOCIETE ANONYME DES PEPINIERES ET ROSERAIES GEORGES DELBARD

Patents By Year of Grant: 0 0 0 0 0 0 0 0 0 0 1 4 0 3 0 8

Patents By Year of Application: 0 0 0 0 0 0 0 0 0 2 3 3 0 0 0 8

TREE INTRODUCTIONS, INC.

Patents By Year of Grant: 0 0 0 0 2 0 0 0 0 0 0 0 0 5 1 8

Patents By Year of Application: 0 0 2 0 0 0 0 0 0 0 1 4 1 0 0 8

DEROOSE PLANTS BVBA

Patents By Year of Grant: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 7 7

Patents By Year of Application: 0 0 0 0 0 0 0 0 0 0 0 0 7 0 0 7

GROOT ASSOCIATES II

Patents By Year of Grant: 0 0 7 0 0 0 0 0 0 0 0 0 0 0 0 7

Patents By Year of Application: 7 0 0 0 0 0 0 0 0 0 0 0 0 0 0 7

INNOVAPLANT GMBH & CO. KG

Patents By Year of Grant: 0 0 0 0 0 0 0 0 0 0 0 2 1 1 3 7

Patents By Year of Application: 0 0 0 0 0 0 0 0 0 2 0 2 2 1 0 7

L. DAEHNFELDT LTD.

Patents By Year of Grant: 6 0 0 0 0 1 0 0 0 0 0 0 0 0 0 7

Patents By Year of Application: 6 0 0 1 0 0 0 0 0 0 0 0 0 0 0 7

MIYOSHI & CO. LTD.

Patents By Year of Grant: 0 0 0 0 0 0 0 0 0 3 0 4 0 0 0 7

Patents By Year of Application: 0 0 0 0 0 0 0 0 3 4 0 0 0 0 0 7

REEDLEY NURSERY, INC.

Patents By Year of Grant: 7 0 0 0 0 0 0 0 0 0 0 0 0 0 0 7

Patents By Year of Application: 7 0 0 0 0 0 0 0 0 0 0 0 0 0 0 7

SAKATA SEED AMERICA, INC.

Patents By Year of Grant: 0 0 3 0 0 0 0 0 0 0 0 3 1 0 0 7

Patents By Year of Application: 2 1 0 0 0 0 0 0 0 4 0 0 0 0 0 7

STEWART ORCHIDS

Patents By Year of Grant: 0 1 3 2 0 0 1 0 0 0 0 0 0 0 0 7

Patents By Year of Application: 2 3 1 0 1 0 0 0 0 0 0 0 0 0 0 7

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---- Ranked List of Organizations with 5 or More Patents ----

[illegible]



(Granted: Jan 01, 1977 - Dec 31, 2001) ---- Ranked List of Organizations with 5 or More Patents ----

[illegible]

(Granted: Jan 01, 1977 - Dec 31, 2001) ---- Ranked List of Organizations with 5 or More Patents ----

[illegible]

---- Organizational Patenting (Granted: Jan 01, 1977 - Dec 31, 2001) ---- Ranked List of Organizations with 5 or More Patents ----

	Pre 1988	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	TOTAL
SCOTTISH CROP RESEARCH INSTITUTE																
Patents By Year of Grant:	0	0	1	0	0	0	0	0	0	0	2	0	0	2	0	5
Patents By Year of Application:	1	0	0	0	0	0	0	0	0	2	0	2	0	0	0	5
SEED RESEARCH SERVICES, LLC																
Patents By Year of Grant:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5
Patents By Year of Application:	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	5
SPRING MEADOW NURSERY, INC.																
Patents By Year of Grant:	0	0	0	0	0	0	0	0	0	0	0	1	2	0	2	5
Patents By Year of Application:	0	0	0	0	0	0	0	0	0	0	2	1	1	1	0	5
TEXAS A&M UNIVERSITY SYSTEM																
Patents By Year of Grant:	0	0	0	0	1	0	0	0	0	0	0	1	1	2	0	5
Patents By Year of Application:	0	0	1	0	0	0	0	0	0	0	2	2	0	0	0	5
UNIVERSITY OF CONNECTICUT																
Patents By Year of Grant:	0	0	0	0	0	0	0	0	3	1	1	0	0	0	0	5
Patents By Year of Application:	0	0	0	0	0	0	0	4	1	0	0	0	0	0	0	5
UNIVERSITY OF FLORIDA BOARD OF REGENTS																
Patents By Year of Grant:	0	0	0	0	1	2	1	1	0	0	0	0	0	0	0	5
Patents By Year of Application:	0	0	1	1	1	2	0	0	0	0	0	0	0	0	0	5
UNIVERSITY OF TENNESSEE RESEARCH CORPORATION																
Patents By Year of Grant:	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	5
Patents By Year of Application:	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5
YOVAL AGRICULTURAL PRODUCTS LTD.																
Patents By Year of Grant:	0	0	0	0	0	0	1	1	0	3	0	0	0	0	0	5
Patents By Year of Application:	0	0	0	0	2	0	0	3	0	0	0	0	0	0	0	5
Other Organizations (460)																
Patents By Year of Grant:	146	48	40	29	27	23	36	41	32	35	49	50	57	59	64	736
Patents By Year of Application:	217	30	34	28	34	29	27	35	64	55	66	61	41	11	4	736